

Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

1. (Currently amended). An image forming apparatus, comprising:

an image reading unit which reads image information and surface quality from a subject and supplies image data and surface quality data;

an image processing unit ~~which has~~ comprising a recorded image preparing means for preparing an image data for recording ~~by subjecting based on~~ the image data ~~to prescribed image processing~~ and a surface quality determining means for determining the surface quality of the subject copy from the surface quality data and preparing surface quality determination data; and

an image output unit ~~which has~~ having an image forming means for forming an performing image formation ~~processing~~ on a ~~recording material~~ sheet based on the basis of the image data for recording and a surface treatment means for performing surface treatment on the a sheet based ~~on the basis of~~ the surface quality determination data,

wherein the surface treatment means comprises

a sheet heating means having a contact member in the form of a sheet, the sheet heating means heating the sheet while a surface of the sheet is in contact with the contact member; and

a sheet cooling means for cooling the sheet while being kept in contact with the contact member.

2. (Currently amended). ~~The An~~ image forming apparatus according to Claim 1, wherein the image recording unit comprises ~~has~~ one of a CCD sensor and a CMOS sensor capable of reading image information and surface quality from the subject copy.

3. (Currently amended). ~~The An~~ image forming apparatus according to Claim 1, wherein the image recording unit ~~has~~ comprises:

an image reading means which reads image information on the subject copy and supplies the image data, and

a surface quality reading means which reads the surface quality of the subject copy and supplies the surface quality data.

4. (Currently amended). The ~~An~~ image forming apparatus according to Claim 3, wherein the surface quality reading means has a surface quality detecting sensor which detects the surface quality of the subject copy.
5. (Currently amended). The ~~An~~ image forming apparatus according to Claim 4, further comprising a light source, wherein the surface quality detecting sensor causes the light source to irradiate the subject copy with light, measures luminous energy of mirror reflection as regular reflection (~~regular reflection~~) and luminous energy of diffusion from the subject copy, and detects the ratio between the luminous energy of the regular reflection and the luminous energy of diffusion (~~regular reflection luminous energy/diffused luminous energy~~).
6. (Currently amended) The ~~An~~ image forming apparatus according to Claim 5, wherein the light source for the surface quality detecting sensor emits infrared (IR) rays.
7. (Currently amended) The ~~An~~ image forming apparatus according to Claim 4, further comprising a light source, wherein the light source irradiates an embossed subject copy in an oblique direction with a luminous flux, the surface quality reading means reads shades due to the embossment of the embossed subject copy, and the surface quality reading means thereby detects the surface quality of the subject copy.
8. (Currently amended) The ~~An~~ image forming apparatus according to Claim 1, wherein the surface quality determining means has a preset level of surface quality determination, ~~wherein~~ and the surface quality determining means determines the surface quality of the subject copy by evaluating surface quality data against the level of surface quality determination.
9. (Currently amended) The ~~An~~ image forming apparatus according to Claim 1,

wherein the surface quality determining ~~part having means~~ has a surface quality pattern database, and wherein the surface quality determining means determines the surface quality of the subject copy by referring the surface quality data to the surface quality pattern database.

10. Canceled

11. (Currently amended) ~~The An~~ image forming apparatus according to Claim ~~10~~ 1, further comprising a surface quality control means,

wherein the contact member ~~has~~ having a predetermined surface quality, ~~and the image forming apparatus further comprising the~~ surface quality control means ~~for controlling controls~~, on the basis of the surface quality determination data, at least one of:

a treatment condition of at least one of the sheet heating means and the sheet cooling means; and

the surface quality of the contact member.

12. (Currently amended) ~~The An~~ image forming apparatus according to Claim 11, wherein the treatment condition is at least one selected from:

heating temperature of the sheet heating ~~part means~~,
pressure of the sheet heating ~~part means~~,

heating duration of the sheet heating ~~part means~~,

duration of pressure application of the sheet heating means,

cooling temperature of the sheet cooling ~~part means~~, and

cooling duration of the sheet cooling means.

13. (Currently amended). ~~The An~~ image forming apparatus according to Claim 11, wherein the surface quality of the contact member is selected from gloss, matte and embossment.

14. (Currently amended) ~~The An~~ image forming apparatus according to Claim ~~10~~ 1, wherein the surface treatment means further comprises a gloss control means for controlling the surface gloss of the sheet so that the surface gloss is one of

higher than, lower than, and the same as the surface gloss of the subject copy.

15. (Currently amended) ~~The~~ An image forming apparatus according to Claim 1 ~~to~~, wherein the surface treatment means further comprises a surface quality partial control means which is configured to form ~~capable of forming~~, on a portion of the surface of the sheet, a surface quality different from a surface quality of another portion of the surface of the sheet.
16. (Currently amended) ~~An~~ The image forming apparatus according to Claim 1 ~~to~~, wherein the contact member is an endless belt.
17. (Currently amended) ~~An~~ The image forming apparatus according to Claim 16, wherein the sheet heating means comprises the endless belt and a pair of heating rollers so arranged ~~as~~ to press the endless belt from inside and outside of the endless belt.
18. (Currently amended) ~~An~~ The image forming apparatus according to Claim 1 ~~to~~, wherein the sheet comprises a thermoplastic resin layer containing a thermoplastic resin and the sheet heating means heats the sheet to a temperature equal to or above the softening point of the thermoplastic resin in the thermoplastic resin layer.
19. (Currently amended) ~~An~~ The image forming apparatus according to Claim 1 ~~to~~, wherein the sheet comprises a thermoplastic resin layer containing a thermoplastic resin and the sheet cooling means cools the sheet to a temperature below the softening point of the thermoplastic resin in the thermoplastic resin layer.
20. (Currently amended) ~~An~~ The image forming apparatus according to Claim 1 ~~to~~, wherein the sheet comprises:
- a supporting base;
 - a thermoplastic resin layer; and
 - an image forming layer, wherein the thermoplastic resin layer and the

image forming layer are formed on the supporting base in this order, and the surface quality of the contact member is transferred to a surface of the image forming layer and an interface of the thermoplastic resin layer and the image forming layer.

21. (Currently amended) ~~An~~ The image forming apparatus according to Claim 15, wherein the contact member has a different quality at least in a portion thereof.

22. (Currently amended) The ~~An~~ image forming apparatus according to Claim 21, wherein the quality is at least one of surface quality or thermal conductivity.

23. (Currently amended) The ~~An~~ image forming apparatus according to Claim 15, wherein the sheet heating means comprises a thermal head.

24. (Currently amended) The ~~An~~ image forming apparatus according to Claim 1, wherein the sheet is selected from a thermosensitive recording sheet, inkjet sheet, electrophotographic sheet, heat developing sheet, silver halide photographic sheet and silver halide digital photographic sheet.